BEFORE

THE PUBLIC SERVICE COMMISSION OF

SOUTH CAROLINA

DOCKET NO. 93-005-E - ORDER NO. 93-483

MAY 27, 1993

IN RE: Adjustment of Base Rates for Fuel Costs for Duke Power Company	)))	ORDER APPROVING BASE RATES FOR FUEL COSTS

On May 18, 1993, the Public Service Commission of South Carolina (the Commission) held a public hearing on the issue of the recovery of the costs of fuel used in electric generation by Duke Power Company (the Company) to provide service to its South Carolina retail electric customers. The procedure followed by the Commission is set forth in S.C. Code Ann., §58-27-865 (Cum. Supp. 1991). The review in this case is from December, 1992 through May, 1993.

At the public hearing, William F. Austin, Esquire, and William Larry Porter, Esquire, represented the Company; Nancy Vaughn Coombs, Esquire, represented the Intervenor, the Consumer Advocate of South Carolina; and F. David Butler, General Counsel, and Florence P. Belser, Staff Counsel, represented the Commission Staff. The record before the Commission consists of the testimony of two witnesses on behalf of the Company, three witnesses on behalf of the Commission Staff, and four (4) hearing exhibits.

Based upon the evidence of the record, the Commission makes the following findings of fact and conclusions of law:

FINDINGS OF FACT

1. The record of this proceeding indicates that for the period from October 1992 through March 1993 the Company's actual total fuel costs for its electric operations amounted to $305,890,795. Hearing Exhibit No. 3, Accounting Exhibit E.

2. Staff reviewed and compiled a percentage generation mix statistic sheet for the Company's fossil, nuclear and hydraulic plants for October 1992 through March 1993. The fossil generation ranged from a high of 40% in March to a low of 23% in November. The nuclear generation ranged from a high of 74% in November to a low of 56% in March. The percentage of generation by hydro ranged from 3% to 4% for this period. Hearing Exhibit No. 4; Electric Department Exhibit No. 3.

3. During the October 1992 through March 1993 period, coal suppliers delivered 4,999,919 tons of coal at a weighted average received cost per ton of $43.52. The Commission Staff's audit of the Company's actual fuel procurement activities demonstrated that the average monthly received cost of contract coal varied from $43.88 per ton in February to $50.77 per ton in December. Hearing Exhibit No. 3, Accounting Exhibit A.

4. According to Company witness William R. Stimart, the performance of the Company's nuclear units equals or exceeds that of comparable facilities as demonstrated thusly:

Duke system actual capacity factors -

October 1992-March 1993	83%	5 units refueled
April 1992-September 1992	78%	2 units refueled
12 months ended March 1993	80%	
Calendar 1992	78%	

National average capacity factors -

NERC data for PWR's	
Calendar 1991	73%
5 year 1987-1991	68%

5. Staff collected and reviewed certain generation statistics of major Company plants for the six months ending March 31, 1993. Hearing Exhibit No. 4, Electric Department Exhibit 4. The Oconee Nuclear Plant had the lowest average fuel cost at 0.49 cents per kilowatt-hour. The highest amount of generation was 9,264,596 megawatt-hours produced at the McGuire Nuclear station.

6. The Commission Staff conducted an extensive review and audit of the Company's fuel purchasing practices and procedures for the subject period. The Staff's accounting witness, Jacqueline R. Cherry, testified that the Company's fuel costs were supported by the Company's books and records. Testimony of Cherry; Hearing Exhibit No. 3, Accounting Department Exhibits.

7. The Commission recognizes that the approval of the currently effective methodology for recognition of the Company's fuel costs requires the use of anticipated or projected costs of fuel. The Commission further recognizes the fact inherent in the utilization of a projected average fuel cost for the establishment of the fuel component in the Company's base rates that variations

between the actual costs of fuel and projected costs of fuel would occur during the period and would likely exist at the conclusion of the period. Section 58-27-865, supra, establishes a procedure whereby the difference between the base rate fuel charges and the actual fuel costs would be accounted for by booking through deferred fuel expenses with a corresponding debit or credit.

8. The record of this proceeding indicates that the comparison of the Company's fuel revenues and expenses for the period October 1992 through March 1993 produces an over-recovery of $15,096,601 through March 1993. Staff added the projected under-recovery for April, 1993 of $744,651 and the projected under-recovery for May, 1993 of $4,753,085 to arrive at an over-recovery of $9,598,865. Cherry testimony, p. 3.

9. The Company's projected average fuel expense for the June, 1993 through November, 1993 period is 1.1723 cents per KWH. However, when adjusted by the cumulative variance of fuel cost recovery, the adjusted fuel costs are 1.0995 cents per KWH. Stimart testimony, p. 11.

10. Company witness Stimart proposed that the fuel component in base rates of 0.95 cents/KWH be continued effective June, 1993. Stimart testimony, pp. 11-12.

11. Staff witness Watts testified that using the currently projected sales and fuel cost figures through November 1993, and a projected cumulative over-recovery of $9,598,865 through May, 1993, the average projected fuel expense is approximately 1.0728¢/KWH for the six months ending November, 1993. The currently approved base

fuel factor is 0.9500¢/KWH. If the base fuel component remains at 0.950¢/KWH for this period, it will produce an estimated under-recovery of $12,147,688. Testimony of Watts, pp. 4-5; Hearing Exhibit No. 4, Electric Department Exhibit 10.

12. Staff proposed this fuel factor of 0.950¢/KWH so that fluctuations in the fuel factor will be limited over the long term. This recommendation will further maintain rate stability and maintain a relative balance between actual and projected fuel costs and sales.

13. During the period under review,[1] Oconee Unit 1, Oconee Unit 3, Catawba Unit 1, and Catawba Unit 2 were down for refueling during some portion of the time. Other scheduled and/or forced outages occurred during this time frame at these and at some of the Company's other nuclear units. All outages were reviewed by Staff (Hearing Exhibit No. 4, Electric Department Exhibit 2A) and a determination was made by Staff as to the prudence of the outages. Most of the outages experienced by the Company were determined by the Staff to be the result of equipment failures or were planned scheduled outages. Staff determined that no outage which occurred during the review period was the result of imprudence on the part

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1. Included in this review are the refueling outages at Oconee Unit 3 and Catawba Unit 1. The Oconee Unit 3 outage and the Catawba Unit 1 outage commenced in July 1992 during the Company's last fuel review period in Docket No. 92-006-E. The Commission ruled in Order No. 92-1011 that these two outages would be reviewed and ruled upon in Duke's next fuel proceeding. Staff recommended that the refueling outage at McGuire Unit 1 be carried over for review during the Company's Fall 1993 fuel proceeding due to Staff's lack of time to appropriately review the outage before the instant hearing.

of the Company. Furthermore, Staff found that there were no Company actions which required Duke's customers to incur higher fuel costs.

CONCLUSIONS OF LAW

1. Pursuant to S.C. Code Ann.,§58-27-865(A)(Cum. Supp. 1992), each electrical utility must submit to the Commission its estimated fuel costs for the next six (6) months. Following an investigation of these estimates and after a public hearing, the Commission directs each electrical utility "to place in effect in its base rate an amount designed to recover, during the succeeding six months, the fuel costs determined by the Commission to be appropriate for that period, adjusted for the over-recovery or under-recovery from the preceding six-month period." Id.

2. S.C. Code Ann., Section 58-27-865(F)(Cum. Supp. 1992) requires the Commission to allow electrical utilities to recover "all their prudently incurred fuel costs... in a manner that tends to assure public confidence and minimize abrupt changes in charges to consumers."

3. S.C. Code Ann., Section 58-27-865(E)(Cum. Supp. 1992) specifies as follows:

> The Commission shall disallow recovery of any fuel costs that it finds without just cause to be the result of failure of the utility to make every reasonable effort to minimize fuel costs or any decision of the utility resulting in unreasonable fuel costs, giving due regard to reliability of service, economical generation mix, generating experience of comparable facilities, and minimization of the total cost of providing service.

4. As stated by the Supreme Court in Hamm v. South Carolina

Public Service Commission, 291 S.C. 178, 352 S.E.2d 476, 478 (1987), Section 58-27-865(E) requires the Commission "to evaluate the conduct of the utility in making the decisions which resulted in the higher fuel costs. If the utility has acted unreasonably, and higher fuel costs are incurred as a result, the utility should not be permitted to pass along the higher fuel costs to its customers." "[T]he rule does not require the utility to show that its conduct was free from human error; rather it must show it took reasonable steps to safeguard against error." Id. at 478, citing Virginia Electric and Power Co. v. The Division of Consumer Council, 220 Va. 930, 265 S.E.2d 697 (1980).

5. The Commission recognizes that Section 58-27-865(E) provides it with the authority to consider the electrical utility's reliability of service, its economical generation mix, the generating experience of comparable facilities, and its minimization of the total cost of providing service in determining to disallow the recovery of any fuel costs.

6. The major advantage of producing electricity by nuclear power is the relatively low fuel costs for nuclear fuel generating facilities. The cost of generation of electricity is generally composed of costs such as capital, interest, taxes, insurance, operating and maintenance (O&M) costs, and fuel costs. For fossil fueled plants, the cost of the fuel is a larger portion of the total cost to generate electricity. For nuclear power plants, while the capital and O&M costs are higher compared to fossil fueled plants, the fuel costs are comparatively low. Thus, if the

electricity generated by nuclear plants must be replaced by electricity from a coal or gas fired plant, the Company incurs higher fuel costs. This difference between the fuel costs to generate a quantity of electricity by fossil fuel and the fuel costs to generate the electricity by nuclear fuel is the excess replacement fuel cost.

7. The Commission finds that for the period under review, Duke's overall plant performance was very favorable. Since there has been no evidence presented that would show that negligent actions on the part of Duke caused any of the outages, the Commission concludes that it would be improper to prohibit the Company from recovering its fuel costs associated with the outages.

8. The Commission concludes that its decision to allow Duke to recover these costs is supported by the substantial evidence of record. The only witnesses who testified at the hearing have stated that the forced outages were not caused by unreasonable actions of the Company. Furthermore, while the Catawba Unit 1 refueling lasted longer than scheduled, the Commission finds that the outage at Catawba Unit 1 was prudent and reasonable as the outage was extended to make necessary repairs and for maintenance of the unit.

9. After considering the directives of §58-27-865(A) and (F) which require the Commission to place in effect a base fuel cost which allows the Company to recover its fuel costs for the next six months adjusted for the over-recovery or under-recovery from the preceding six month period, in a manner which assures public

confidence and minimizes abrupt changes in charges, the Commission has determined that the appropriate base fuel factor for June 1993 through November 1993 is 0.950¢/KWH. The Commission finds that a 0.950¢ fuel component will allow Duke to recover its projected fuel costs and, at the same time, prevent abrupt changes in charges to Duke's customers.

10. The Commission has determined that Staff's request to carry over the examination of the refueling outage at McGuire Unit 1 which began on March 12, 1993, until the Company's Fall 1993 fuel proceeding, is granted.

IT IS THEREFORE ORDERED THAT:

1. The base fuel factor for the period June, 1993 through November, 1993 is set at 0.950¢/KWH.

2. Within ten (10) days of the date of this Order, Duke Power Company shall file with the Commission, rate schedules designed to incorporate the findings herein, and an adjustment for fuel costs as demonstrated by Appendix A.

3. That the Company comply with the notice requirements set forth in S.C. Code Ann.,§58-27-865(A) (Cum. Supp. 1992).

4. That the Company continue to file the monthly reports previously required.

5. That the Company account monthly to the Commission for the differences between the recovery of fuel costs through base rates and the actual fuel costs experienced by booking the difference to unbilled revenues with a corresponding deferred debit or credit.

6. That the Company submit monthly reports to the Commission of fuel costs and scheduled and unscheduled outages of generating units with a capacity of 100 MW or greater.

7. That the McGuire Unit 1 refueling outage which began on March 12, 1993, will be reviewed in the Company's Fall 1993 fuel proceeding.

8. That this Order shall remain in full force and effect until further Order of the Commission.

BY ORDER OF THE COMMISSION:

Chairman

ATTEST:

Executive Director

(SEAL)

Appendix A
Docket No. 93-005-E
Order No. 93-483
MAY 27, 1993

DUKE POWER COMPANY

Adjustment for Fuel Costs

APPLICABILITY

This adjustment is applicable to and is a part of the Utility's South Carolina retail electric rate schedules.

The Public Service Commission has determined that the costs of fuel in an amount to the nearest one-thousandth of a cent, as determined by the following formula, will be included in the base rates to the extent determined reasonable and proper by the Commission for the succeeding six months or shorter period:

$$F = \frac{E}{S} + \frac{G}{S_1}$$

Where:

F= Fuel cost per Kilowatt-hour included in base rate, rounded to the nearest one-thousandth of a cent.

E= Total projected system fuel costs:

(A) Fuel consumed in the Utility's own plants and the Utility's share of fuel consumed in jointly owned or leased plants. The cost of fossil fuel shall include no items other than those listed in Account 151 of the Commission's Uniform System of Accounts for Public Utilities and Licensees. The cost of nuclear fuel shall be that as shown in Account 518 excluding rental payments on leased nuclear fuel and except that, if Account 518 also contains any expense for fossil fuel which has already been included in the cost of fossil fuel, it shall be deducted from this account.

PLUS

(B) Purchased power fuel costs such as those incurred in unit power and Limited Term power purchases where the fuel costs associated with energy purchased are identifiable and are identified in the billing statement.

PLUS

(C) Interchange power fuel costs such as Short Term, Economy, and other where the energy is purchased on economic dispatch basis.

Energy receipts that do not involve money payments such as Diversity energy and payback of storage energy are not defined as purchased or interchange power relative to this fuel calculation.

MINUS

(D) The cost of fuel recovered through intersystem sales including the fuel costs related to economy energy sales and other energy sold on an economic dispatch basis.

Energy deliveries that do not involve billing transactions such as Diversity energy and payback of storage are not defined as sales relative to this fuel calculation.

S = Projected system kilowatt-hour sales excluding any intersystem sales.

G = Cumulative difference between jurisdictional fuel revenues billed and fuel expenses at the end of the month preceding the projected period utilized in E and S.

S_1 = Projected jurisdictional kilowatt-hour sales for the period covered by the fuel costs included in E.

The appropriate revenue related tax factor is to be included in these calculations.

The fuel cost (F) as determined by Public Service Commission of South Carolina Order No. 93-483 for the period June 1993 through November 1993 is 0.950 cents per kilowatt-hour.